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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------|------------------|
| 09/966,868   | 09/28/2001  | Giridhar D. Mandyam  | NC17550<br>(NOKI02-17550) | 4954             |
| 30973  | 7590        | 07/30/2004           | EXAMINER                  |                  |
| SCHEEF & STONE, L.L.P.<br>5956 SHERRY LANE<br>SUITE 1400<br>DALLAS, TX 75225 |             |                      | VU, THAI                  |                  |
|  |             |                      | ART UNIT                  | PAPER NUMBER     |
|  |             |                      | 2643                      | 7                |

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/966,868

Applicant(s)

MANDYAM ET AL.

Examiner

Thai Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-19 is/are rejected.
- 7) ☒ Claim(s) 6-7,20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

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***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, and 8-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Holtzman et al. (Pat #: 6,624,804 hereinafter "Holtzman").

Regarding claim 1, Holtzman teaches in a multi-user communication system defining a radio link (i.e. CDMA) upon which both closed-loop, power-controlled communication services (i.e. voice-data communication) and best-effort communication services (i.e. non-voice data communication; Abstract; column 1 lines 16-18) are effectuable thereon between a sending station and at least a first receiving station, an improvement of apparatus for facilitating allocation of power levels of at least a first best-effort communication signal communicated upon the radio link pursuant to effectuation of at least a first best-effort communication service between the sending station (i.e. base station, BS) and the at least the first receiving station (i.e. remote station, RS; Abstract,

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column1 lines 44-56; column 3 lines 14-37 claim 5 lines 7-16), said apparatus comprising:

a predictor (i.e. accumulator 606 FIG. 608) coupled to receive indicia associated with transmit power levels at which closed-loop, power-controlled communication signals (i.e. voice-data, first channel) sent upon the radio link to effectuate the guaranteed QoS communication services are transmitted, said predictor for predicting subsequent power levels (i.e. determining a dynamic transmission power level) at which the closed-loop, power-controlled communication signals shall subsequently be transmitted (FIG. 3 item 314; column 6 lines 25-53; column 11 lines 24-34).

an allocator coupled to said predictor to receive indications of predictions made thereat, said allocator for allocating the power levels (i.e. means for adjusting or not adjusting the transmission power) at which subsequently to transmit the at least the first best-effort communication signal (i.e. second channel; Gain element 544 FIG. 5b; lines 45-59).

Regarding claim 2, Holtzman teaches the apparatus of claim 1 wherein the indicia of the transmit power levels to which said predictor is coupled to receive comprise indicia associated with prior power levels at which the closed-loop, power-controlled communication signals have previously been sent upon the radio link, the subsequent power levels predicted by said predictor responsive, at least in part, to values of the indicia associated with the prior power levels (FIG.1, FIG. 2; column lines 39-55)

Regarding claim 8, Holtzman teaches predictions of the subsequent power levels at which the closed-loop, power-controlled communication signals shall subsequently be transmitted are made pursuant to an autoregressive process (FIG.1, FIG. 2; lines 39-55).

Regarding claim 9, Holtzman teaches the predictions are successively altered responsive to successive indicia associated with the prior power levels measured at successive intervals (FIG.1, FIG. 2 lines 39-55).

Regarding claim 10, Holtzman teaches a plurality of closed-loop, power-controlled communication signals are concurrently sent upon the radio link to effectuate a plurality of closed-loop, power-controlled communication services, and wherein predictions made by said predictor are made responsive to indicia associated with the transmit power levels of each of the plurality of guaranteed QoS communication signals (column 3 lines 38-45).

Regarding claim 11, Holtzman teaches predictions made by said predictor of the subsequent power levels at which the closed-loop, power-controlled communication signals shall subsequently be transmitted comprise predictions of maximum power levels at which each of the closed-loop, power-controlled communication signals shall subsequently be transmitted (column 5 lines 39-55).

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Regarding claim 12, Holtzman teaches the at least the first best-effort communication signal comprises a plurality of best-effort communication signals and wherein said allocator allocates the power levels at which subsequently to transmit each of the plurality of the best-effort communication signals (column 5 lines 62-column 6 lines 66; claim 6-lines 41-42).

Regarding claim 13, Holtzman teaches the multi-user communication system comprises a CDMA (code-division, multiple-access) cellular communication system, wherein the radio link comprises a downlink, the sending station comprising a base transceiver station forming part of a system network, and the at least the first receiving station comprising a first mobile station and at least a second mobile station, and wherein said predictor and said allocator is positioned at the system network of the CDMA cellular communication system (i.e. determining and allocating transmission power steps are done at a base station which is the system network; column 1, lines 44-64; column 14 lines 20-30).

Regarding claim 14, Holtzman teaches the closed-loop, power-controlled communication signals sent upon the down link to effectuate the closed-loop, power-controlled services are power-controlled pursuant to a closed-loop power control scheme (column 3 lines 38-45, column 3 lines 39-45), wherein the at least the first best-effort communication signal comprises at least a first time-multiplexed signal sent on a shared channel defined upon the forward link (FIG.

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5a, items 522, 524, 534; column 8 lines 13-14) and wherein said allocator allocates the power levels at which subsequently to transmit the at least the first time-multiplexed signal (column 6 lines 41-42).

Regarding claim 15, Holtzman teaches a method for communicating in a multi-user communication system defining a radio link upon which both closed-loop power-controlled communication services (i.e. voice-data communication), and best-effort communication services (i.e. non-voice data) are effectuable thereon between a sending station and at least a first receiving station an improvement of a method for facilitating allocation of power levels of at least a first best-effort communication signal communicated upon the radio link pursuant to effectuation of at least a first best-effort communication service between the sending station and the at least the first receiving station (Abstract), said method comprising:

detecting indicia associated with transmit power levels at which closed-loop, power-controlled communication signals (i.e. voice-data) sent upon the radio link to effectuate the closed-loop, power-controlled communication services are transmitted (FIG. 3 item 310; column 13 lines 28-29, );

predicting subsequent power levels at which the closed-loop, power-controlled communication signals shall subsequently be transmitted responsive to detections made during said operation of detecting (FIG. 3 item 314; column 13 lines 31-32) and

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allocating the power levels at which subsequently to transmit the at least the first best-effort communication signal (i.e. second channel) responsive to predictions made during said operation of predicting (column 13 lines 32-35).

Regarding claim 16, Holtzman teaches the indicia detected during said operation of detecting comprise indicia associated with prior power levels at which the closed-loop, power-controlled communication signals have previously been sent upon the radio link (FIG.1, FIG. 2; column 5 lines 39-55).

Regarding claim 17, Holtzman teaches predictions made during said operation of predicting are responsive, at least in part, to values of the indicia associated with the prior power levels (FIG.1, FIG. 2; column 5 lines 39-55).

Regarding claim 18, Holtzman teaches the operation of predicting comprises performing an auto-regression procedure upon indicia of successive prior power levels (FIG.1, FIG. 2; column 5 lines 39-55; column 6 lines 36-39).

Regarding claim 19, Holtzman teaches operation of selectably reallocating the power levels allocated during said operation of allocating, thereby to reduce selectably the power levels (claim 3 lines 32-35; column 2 lines 36-39; column 6 lines 7-9)



***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holtzman in view of Chen (Pat #: 6,067,458, hereinafter Chen).

Regarding claim 3, Holtzman teaches all subject matter as claimed above, but fails to teach a storage element coupled to said predictor, said storage element for storing the indicia associated with the prior power levels, the indicia stored at said storage element accessible to said predictor to predict the subsequent power levels at which the closed-loop, power-controlled communication signals shall be transmitted.

However Chen teaches such limitations in column 13 lines 20-25 for a purpose of estimation the proper new power level.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use the storage as taught by Chen into view of Holtzman in order to keep records of power levels to improve

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the predictor that calculates the power level at which the closed-loop, power-controlled communication signals shall be transmitted.

Regarding claim 4, Holtzman further teaches limitations of claim in column 3, lines 16-22, column 14, lines 40-41; column 14 lines 26-29.

Regarding claim 5, Holtzman further teaches limitations of claim in (column 2 lines 36-39; column 6 lines 7-9).

***Allowable Subject Matter***

5. Claims 6,7 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

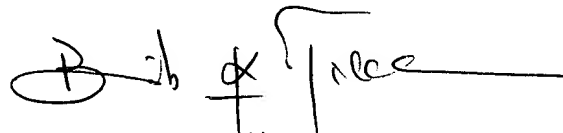
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Vu whose telephone number is 703-305-3417. The examiner can normally be reached on 9:00AM-6:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-3900. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Vu  
Examiner  
Art Unit 2643



BINH TIEU  
PRIMARY EXAMINER